



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Released Items
2008**

**Grade 7
Reading**

Reading

The small boat pitched back and forth over the rough waves.

- ❶ Which sentence uses the word pitched as it is used in the box?
- A. We pitched our tent near the river.
 - B. Jane pitched her voice low as she told the secret.
 - C. The tree's branches pitched in the wind.
 - D. Simon pitched the ball directly to the batter.

Katherine had not planned to go to the beach that day—it had just been a whim.

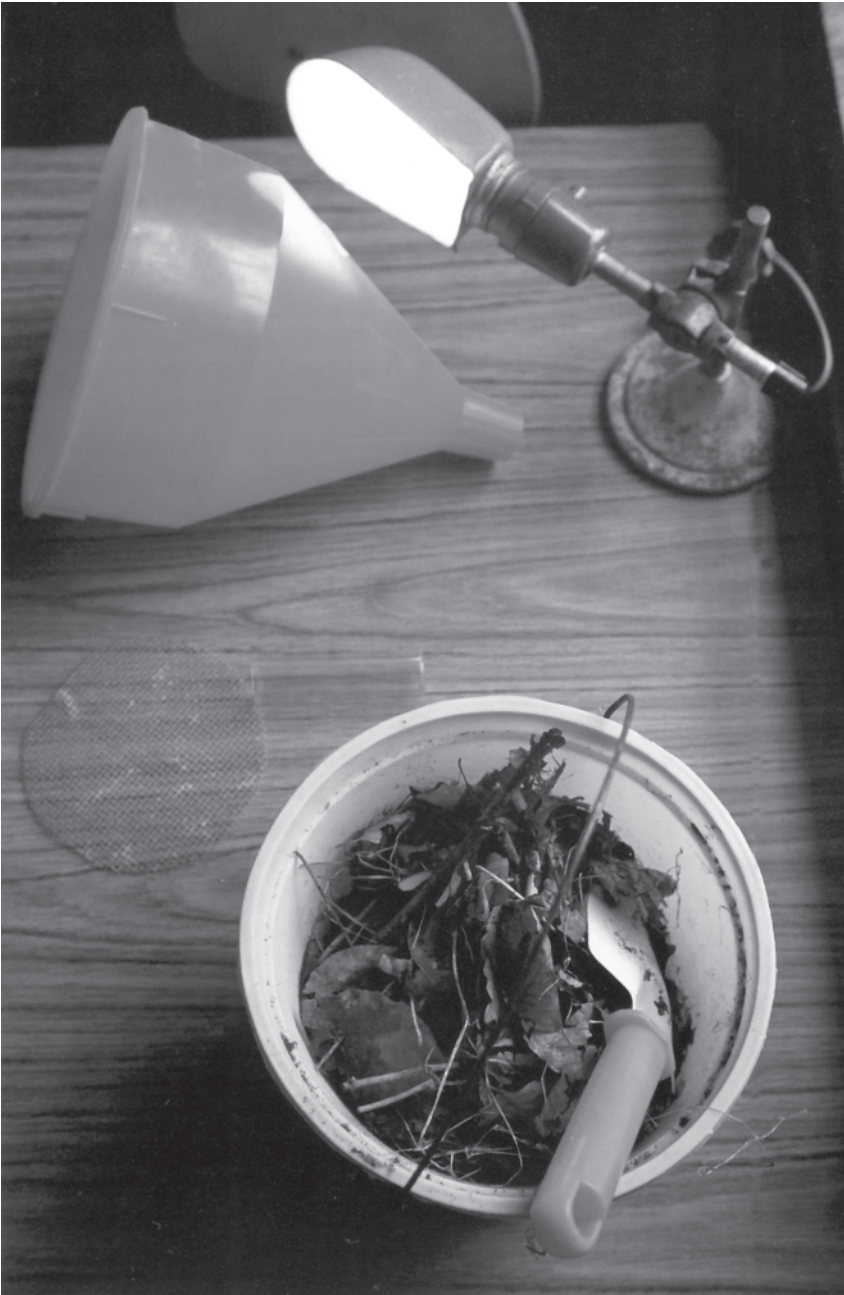
- ❷ What does the word whim mean as it is used in the box?
- A. a weak reason
 - B. a sudden idea
 - C. a scheduled event
 - D. a regretted decision

A Berlese funnel can be fun to make and useful to have. Read this article and then answer the questions that follow.

Using a Berlese Funnel

A

Berlese funnel (also called a Tullgren funnel) can help you find out what animals live in leaf litter and soil. It will help you collect very tiny animals that you might otherwise overlook. You can make your own Berlese funnel from equipment you buy or find around the house.



Materials

- a large plastic or metal funnel
- glass vial, just big enough to fit over the narrow end of the funnel (optional)
- piece of coarse wire screen (a 1 centimeter or 1/4 inch mesh will do)
- wire cutters or tin snips
- jar, bucket, or three-legged stand to hold funnel
- some leaf litter or soil, freshly collected
- a gooseneck lamp or an adjustable desk lamp
- jar lid or petri dish

Directions

1. Cut a circular piece from the wire screen with the wire cutters or tin snips. Make the circle three or more inches in diameter.
2. If you are using a purchased funnel that comes with a glass collecting vial, slip the vial onto the small end of the funnel.
3. Place the circular screen inside the funnel.





4. Set the funnel on the three-legged stand, or place it in a jar or bucket that will hold the funnel upright.



5. Fill the funnel several inches deep with leaf litter. Make sure to use fresh litter that you've collected that day.



6. Turn on the lamp, and position it so that the bulb shines down onto the leaf litter. Make sure the bulb is close enough to warm the litter, but not positioned in a way that might melt a plastic funnel!

7. After half an hour or so, lift the funnel and look into the collecting vial, bucket, or jar. If no animals are present, set the funnel back under the light and wait a while longer. You may want to check your funnel frequently at first to see how long it takes for animals to begin dropping into the jar. You can leave your funnel under the light for as long as you want, provided you are nearby.

8. Study the creatures you have collected. You might want to put some in a jar lid or plastic petri dish so that you can observe them with a hand lens or microscope. You will probably find animals that are new to you, as well as some familiar ones.

9. When you are through, return the animals you collected to the litter or soil they crawled out of. Put the litter or soil back where you found it.

Real Pseudo



You may find a pseudoscorpion among the animals you collect with your Berlese funnel. Although pseudoscorpions are common in leaf litter, they are so small that people usually don't notice them. Most pseudoscorpions are less than two-tenths of an inch long. Though they do have fierce-looking pincers, they are too small to pinch or bite a person. They prey on tiny insects.

Note: You can use a mothball instead of a light bulb to drive the animals out of the litter. Simply tape a mothball to a piece of wood or cardboard large enough to cover the open top of your funnel. Place the board on the funnel, with the mothball "inside," over the litter. Use the funnel outdoors, on the porch, or in another well-ventilated area, since it isn't healthy to inhale mothball fumes.

3 Which material is **not** necessary to have when making a Berlese funnel?

- A. a glass vial
- B. wire screen
- C. leaf litter
- D. a jar lid

4 The purpose of the three-legged stand is to

- A. increase the surface area.
- B. retain the leaf litter.
- C. keep the funnel in place.
- D. eliminate unnecessary litter.

5 In step 5, what advice is provided?

- A. Be sure to use fresh litter when lining the funnel.
- B. Do not place the bulb too close to the litter.
- C. Check the jar or vial often for animals.
- D. Return the animals to the soil when finished.

6 The reason for including step 6 is to

- A. explain bulb use to the reader.
- B. entertain the reader with good advice.
- C. inform the reader about the funnel's function.
- D. explain to the reader how to see the animals.

7 In your own words, describe the design and purpose of the Berlese funnel.

- 8 According to step 7, the light may be kept on
- A. only for short periods of time.
 - B. for a half an hour.
 - C. until the leaf litter is dry.
 - D. as long as it is supervised.

- 9 According to the article, another way to drive animals out of litter is with a
- A. loud noise.
 - B. glass vial.
 - C. mothball.
 - D. microscope.

- 10 What is the purpose of the section “Real Pseudo”?
- A. to give the reader a lesson about animals
 - B. to help the reader understand how the funnel is built
 - C. to let the reader know there are many uses for the funnel
 - D. to give an example of an animal that might be found in the funnel

- 11 The word inhale means
- A. ignite.
 - B. breathe.
 - C. capture.
 - D. destroy.

- 12 Which steps in the directions are important to guarantee that the Berlese funnel works correctly? Explain your answer by using information from the article.

Acknowledgments

The New Hampshire, Vermont, and Rhode Island Departments of Education wish to acknowledge and credit the following authors and publishers for use of their work in the reading portion of the *New England Common Assessment Program*—2008.

“Using a Berlese Funnel” (pp. 2–3) from *Woods, Ponds, & Fields* by Ellen Doris. Photographs copyright © 1994 by Len Rubenstein. Copyright © 1994 by Thames and Hudson, Inc. Published by Grolier Educational.

Grade 7 Reading Released Item Information

Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12
Content Strand ¹	WV	WV	II	II	II	IA	IA	II	II	II	WV	II
GLE Code	6-3	6-2	6-7	6-7	6-7	6-8	6-8	6-7	6-7	6-7	6-3	6-7
Depth of Knowledge Code	2	1	1	2	1	2	3	2	2	2	2	2
Item Type ²	MC	MC	MC	MC	MC	MC	CR	MC	MC	MC	MC	CR
Answer Key	C	B	A	C	A	A		D	C	D	B	
Total Possible Points	1	1	1	1	1	1	4	1	1	1	1	4

¹Content Strand: WV = Word ID/Vocabulary, LI = Literary/Initial Understanding, LA = Literary/Analysis & Interpretation,
 II = Informational/Initial Understanding, IA = Informational/Analysis & Interpretation

²Item Type: MC = Multiple Choice, CR = Constructed Response



**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Released Items
Support Materials
2008**

**Grade 7
Reading**

**NECAP 2008 RELEASED ITEMS
GRADE 7 READING**

6.3.2 Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by selecting appropriate words or explaining the use of words in context, including content specific vocabulary, words with multiple meanings, or precise vocabulary

The small boat pitched back and forth over the rough waves.

- 1 Which sentence uses the word pitched as it is used in the box?
- A. We pitched our tent near the river.
 - B. Jane pitched her voice low as she told the secret.
 - C. The tree's branches pitched in the wind.
 - D. Simon pitched the ball directly to the batter.

6.2.1 Students identify the meaning of unfamiliar vocabulary by using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes and base words; or context clues; or other resources, such as dictionaries, glossaries, thesauruses; or prior knowledge)

Katherine had not planned to go to the beach that day—it had just been a whim.

- 2 What does the word whim mean as it is used in the box?
- A. a weak reason
 - B. a sudden idea
 - C. a scheduled event
 - D. a regretted decision

Using a Berlese Funnel Informational Text

6.7.1 Demonstrate initial understanding of informational texts (expository and practical texts) by obtaining information from text features (e.g., table of contents, glossary, index, transition words/phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations)

- 3 Which material is **not** necessary to have when making a Berlese funnel?
- A. a glass vial
 - B. wire screen
 - C. leaf litter
 - D. a jar lid

6.7.2 Demonstrate initial understanding of informational texts (expository and practical texts) by using information from the text to answer questions related to main/central ideas or key details

- 4 The purpose of the three-legged stand is to
- A. increase the surface area.
 - B. retain the leaf litter.
 - C. keep the funnel in place.
 - D. eliminate unnecessary litter.

Using a Berlese Funnel Informational Text

6.7.2 Demonstrate initial understanding of informational texts (expository and practical texts) by using information from the text to answer questions related to main/central ideas or key details

- 5 In step 5, what advice is provided?
- A. Be sure to use fresh litter when lining the funnel.
 - B. Do not place the bulb too close to the litter.
 - C. Check the jar or vial often for animals.
 - D. Return the animals to the soil when finished.

6.8.3 Analyze and interpret informational text, citing evidence as appropriate by drawing inferences about text, including author's purpose (e.g. to inform, explain, entertain, persuade) or message; or forming and supporting opinions/judgments and assertions about central ideas that are relevant

- 6 The reason for including step 6 is to
- A. explain bulb use to the reader.
 - B. entertain the reader with good advice.
 - C. inform the reader about the funnel's function.
 - D. explain to the reader how to see the animals.

Using a Berlese Funnel Informational Text

6.8.2 Analyze and interpret informational text, citing evidence as appropriate by synthesizing information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas)

- 7** In your own words, describe the design and purpose of the Berlese funnel.

Scoring Guide:

Score	Description
4	Response provides a thorough description, in student's own words, of the design and purpose of the Berlese funnel. Response includes relevant information from the article.
3	Response provides a description, in student's own words, of the design and purpose of the Berlese funnel. Response includes some relevant information from the article.
2	Response provides a partial description, in student's own words, of the design or the purpose of the Berlese funnel. Response includes limited information from the article.
1	Response is vague or minimal.
0	Response is totally incorrect or irrelevant.
Blank	No response

Training Notes:

- The design of the funnel is round and is set on a three-legged stand. It is filled with fresh leaf litter and has a light placed above it.
- The purpose of the funnel is to catch very small animals that live in leaf litter and soil so that people can study them. This helps to collect animals that might otherwise go unnoticed.

SCORE POINT 4

- 7 The Berlese funnel is a funnel with wire mesh at the bottom. It has leaf litter inside of it. At the bottom of the funnel there is a test tube sticking out. It stands on a tripod. It has a reading lamp hanging over it. The lamp heats up the litter which drives the animals out of the funnel and into the test tube where it gets trapped. The purposes of the funnel are to find out what animals are hanging out in the litter. It's also a good way to find out what animals can survive in dirt. You can also use a mothball to drive the bugs out. Just tape the mothball to a piece of wood and put the wood on the funnel, mothball inside. Careful mothball fumes are harmful!

Response provides a thorough description, in student's own words, of the design and purpose of the Berlese funnel. Response includes relevant information from the article.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 3

7

The Berlese Funnel is a tool used to flesh bugs and other small things out of hiding. It does this by fleshing them out with light and warmth. The Funnel is a large Funnel on a three legged stand with a small vial on the end. It would have a light above it or maybe a cardboard peice with a mothball to flesh out the insects.

Response provides a description, in student's own words, of the design and purpose of the Berlese funnel. Response lacks some relevant information from the article or is not fully developed.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 2

- 7 I think that the Berlese funnel is a very good idea because you get to see animals or insects that you have never seen before with your own eye because they are so small that your eye can't see little things like that. Like the pseudoscorpion I wouldn't have been able to see that with my own eye.

Response provides a partial description, in student's own words, of the design or the purpose of the Berlese funnel. Response includes limited information from the article.

SCORE POINT 1

- 7 It's a thing that you use to look at little animals in leaf litter.

Response is vague or minimal.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 0

7

It's a scorpion but in
a different way as the regular
scorpion this is a pseudoscorpion
among the animals.

Response is totally incorrect or irrelevant.

Using a Berlese Funnel Informational Text

6.7.2 Demonstrate initial understanding of informational texts (expository and practical texts) by using information from the text to answer questions related to main/central ideas or key details

- 8** According to step 7, the light may be kept on
- A. only for short periods of time.
 - B. for a half an hour.
 - C. until the leaf litter is dry.
 - D. as long as it is supervised.

6.7.1 Demonstrate initial understanding of informational texts (expository and practical texts) by obtaining information from text features (e.g., table of contents, glossary, index, transition words/phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations)

- 9** According to the article, another way to drive animals out of litter is with a
- A. loud noise.
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 - C. mothball.
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Using a Berlese Funnel Informational Text

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- 10 What is the purpose of the section “Real Pseudo”?
- A. to give the reader a lesson about animals
 - B. to help the reader understand how the funnel is built
 - C. to let the reader know there are many uses for the funnel
 - D. to give an example of an animal that might be found in the funnel

6.3.2 Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by selecting appropriate words or explaining the use of words in context, including content specific vocabulary, words with multiple meanings, or precise vocabulary

- 11 The word inhale means
- A. ignite.
 - B. breathe.
 - C. capture.
 - D. destroy.

Using a Berlese Funnel Informational Text

6.7.3 Demonstrate initial understanding of informational texts (expository and practical texts) by organizing information to show understanding (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, or comparing/contrasting)

- 12** Which steps in the directions are important to guarantee that the Berlese funnel works correctly? Explain your answer by using information from the article.

Scoring Guide:

Score	Description
4	Response provides a thorough explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response includes relevant information from the article.
3	Response provides an explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response includes some relevant information from the article.
2	Response provides a partial explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response includes limited information from the article.
1	Response is vague or minimal.
0	Response is totally incorrect or irrelevant.
Blank	No response

Training Notes:

- It is important that the funnel be filled to the proper depth with fresh litter. This is very important because this is the environment that will attract and maintain the animals for observation.
- Because the animals are small, it is very important to have the light set at the proper distance in order to conduct the observation. If the light is placed too far away, it will not be able to heat properly. If the light is placed too closely, it may burn the litter.

Student responses may vary. Any explanation that is logical and supported by information from the article is acceptable.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 4

12

Step three, placing the wire screen in the funnel, in my opinion is critical because if you don't place the screen or mesh wire into the funnel, all the leaf litter will go through the funnel with the insects. Since all the leaf litter will go through the insects won't be separated for you to observe. Also I think steps 6 and 7 turning on the lamp, positioning it so it won't melt the funnel, and to not leave it unattended for long periods of time are critical. I think they are critical because without them you could catch the leaves on fire, melt the funnel or by not positioning the lamp close enough you might not drive the bugs out of the leaf litter.

Response provides a thorough explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response includes relevant information from the article.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 3

12

Step 1 to make sure you cut out a wire screen
and then Step three to attach the screen to
the funnel. Step 4 to set the funnel on a 3
legged stand to make sure it stays upright.
Steps 5 and 6 fill the funnel several inches
deep with litter fresh from that day! and then
put a lamp on it to draw it out which will bring
the animals out. Step 7 after awhile check in
on the funnel if no animals put back under
the light, and as a reminder to stay near
the funnel as some supervision.

Response provides an explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response lacks some relevant information from the article or is not fully developed.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 2

12

When you put the Funnel on a three-legged stand you have to make sure it fits. When you cut a circular piece from the wire you have to make sure it's not too big or small because you have to fill the funnel with the leaf litter.

Response provides a partial explanation of which steps in the directions are important to ensure that the Berlese funnel works correctly. Response includes limited information from the article.

SCORE POINT 1

12

6, because if the light isn't on, then the animals won't go into the wire.

Response is vague or minimal.

NECAP 2008 RELEASED ITEMS
GRADE 7 READING

SCORE POINT 0

12

all of them

Response is totally incorrect or irrelevant.